

WE CLAIM:

1. A method for thermally simulating a circuit over a network, the circuit having components laid out on a board, comprising:
 - determining the circuit to be thermally simulated over the network;
 - determining a set of thermal characteristics for the circuit;
 - performing a thermal simulation of the circuit based on the determined set of thermal characteristics;
 - producing a result based on the thermal simulation of the circuit; and
 - providing the result over the network to a user.
2. The method of Claim 1, further comprising:
 - allowing the user to change a characteristic of the circuit;
 - determining when the user has changed the characteristic of the circuit;and
 - performing a thermal simulation of the circuit when a determination has been made that the user has changed the characteristic of the circuit.
3. The method of Claim 1, further comprising allowing the user to order the circuit over the network.
4. The method of Claim 2, wherein producing the result based on the thermal simulation, further comprises, producing a design document for the circuit.
5. The method of Claim 2, wherein providing the result over the network to a user further comprises allowing the user to share the circuit.
6. The method of Claim 2, wherein producing the result based on the thermal simulation, further comprises producing operating temperatures of the components.

7. The method of Claim 2, wherein producing the result based on the thermal simulation, further comprises producing a graphical plot of temperature intensities across the board.

8. The method of Claim 2, wherein producing the results based on the thermal simulation, further comprise:
creating a graphical layout showing the location of components on the board; and
displaying the graphical layout to the user.

9. The method of Claim 2, wherein allowing the user to change the characteristic of the circuit, further comprises allowing the user to specify at least one thermal characteristic of the circuit.

10. The method of Claim 9, further comprising allowing the user to add at least one heat sink to the circuit.

11. The method of Claim 9, wherein allowing the user to specify the at least one thermal characteristic of the circuit, further comprises allowing the user to add at least one fan to the circuit.

12. The method of Claim 11, wherein allowing the user to add the at least one fan to the circuit to provide airflow further comprises allowing the user to change a direction and airflow of the at least one fan.

13. A modulated data signal embodied in a carrier wave and representing computer executable instructions for thermally simulating a circuit over a network, comprising:

determining the circuit to simulate over the network;
determining a set of characteristics for the circuit;
performing a thermal simulation of the circuit based on the determined set of characteristics;

producing a thermal result based on the thermal simulation of the circuit;
and
providing a result based on the thermal result over the network to a user.

14. The modulated data signal of Claim 13, further comprising:
allowing the user to change a characteristic from the set of characteristics
for the circuit; and
performing the thermal simulation when the user changes the
characteristic.

15. The modulated data signal of Claim 13, further comprising allowing the
user to order the circuit over the network.

16. The modulated data signal of Claim 13, wherein providing the result,
further comprises providing a design document for the circuit.

17. The modulated data signal of Claim 15, wherein providing the result,
further comprises allowing the user to share the circuit.

18. The modulated data signal of Claim 13, wherein providing the result,
further comprises:
creating a graphical layout showing the location of components on the
board; and
displaying the graphical layout to the user.

19. A system for thermally simulating a circuit over a network, comprising:
a client having a client network connection device operative to connect
the client to the network;
a server having a server network connection device operative to connect
the server to the network; and operative to perform actions, including:
communicating with the client;
determining the circuit to simulate;

determining a thermal characteristic for the circuit;
performing a thermal simulation of the circuit based on the
determined thermal characteristic;
providing a result to the client over the network based on the
thermal simulation.

20. The system of Claim 19, further comprising:
allowing the client to change the thermal characteristic; and
performing the thermal simulation the thermal characteristic is changed.

21. The system of Claim 19, further comprising allowing the circuit to be
ordered over the network.

22. The system of Claim 19, wherein providing the result to the client over
the network based on the thermal simulation further comprises delivering a design
document to the client.

23. The system of Claim 19, wherein providing the result to the client over
the network based on the thermal simulation further comprises allowing the circuit to be
shared.

24. An apparatus for thermally simulating a circuit over a network,
comprising:
a means for determining the circuit to be thermally simulated over the
network;
a means for determining a set of thermal characteristics for the circuit;
a means for performing a thermal simulation of the circuit based on the
determined set of thermal characteristics;
a means for producing a result based on the thermal simulation of the
circuit; and
a means for providing the result over the network to a user.

25. The apparatus of Claim 24, further comprising a means for ordering the circuit over the network.